REMARKS/ARGUMENTS

In the Office Action mailed August 5, 2010, claims 1-18 were rejected. In response, Applicant has amended claims 1, 6, 8, and 13-16. Applicant hereby requests reconsideration of the application in view of the amendments and the below-provided remarks.

Claim Rejections under 35 U.S.C. 102 and 103

Claims 1-18 were rejected based on one or more cited references. The cited reference(s) relied on in these rejections include:

Liu et al. (U.S. Pat. No. 6,219,797, hereinafter Liu)
Cheng (U.S. Pat. Pub. No. 2002/0172309)
Applicant Admitted Prior Art (hereinafter AAPA)

In particular, claims 1-9 and 13-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Cheng. Claims 10-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Cheng and further in view of AAPA. However, Applicant respectfully submits that these claims are patentable over Liu, Cheng and AAPA for the reasons provided below.

Independent Claim 1

Claim 1 has been amended to recite oscillators. Support for this amendment can be found in Applicant's specification in, for example, the abstract and pars. [0024]-[0031], and is illustrated in Fig. 1 (U.S. Pat. Pub. No. 2007/0127610 A1). Amended claim 1 recites:

> "An electronic device for generating a clock signal for an integrated circuit, the device comprising:
>
> at least two oscillators configured to generate a single clock signal at a clock output in response to an input signal and to operate in a mutually exclusive manner, the outputs of said oscillators being selectively connectable to said clock output;
>
> means for receiving a data pattern representative of a sequence of two or more frequencies at which said clock signal is required to be generated;

means for causing an oscillator other than the oscillator generating the clock signal at the immediately previous frequency in said sequence to generate a clock signal at a next frequency in said sequence;

means for causing the clock signal at the immediately previous frequency in said sequence to be disconnected from said clock output; and

means for causing the clock signal at the next frequency in said sequence to be connected to said clock output;

wherein the oscillator being caused to generate a clock signal at each frequency in said sequence is independent of the value of said frequency" (emphasis added).

In contrast to amended claim 1, Liu does not teach that "the oscillator being caused to generate a clock signal at each frequency in said sequence is independent of the value of said frequency" (emphasis added). Liu teaches a microprocessor being able to operate via a crystal oscillator or be switched to a ring oscillator (Liu, abstract). A desired system clock (C1-C4) is obtained by using the crystal oscillator or the ring oscillator connected to one of a plurality of divide by circuits, where a divide by circuit with a high ratio (e.g. ÷1024) is chosen to reduce power consumption. Liu also teaches that control bits CD0 and CD1 are used together to select the necessary divide by circuit to obtain the desired system clock (Liu, col. 20, lines 12-14). Additionally, further power savings can be obtained by switching to the ring oscillator, which has a lower frequency than the crystal oscillator. However, the crystal oscillator and the ring oscillator have constant frequencies and the system clock depends on the particular divide by circuit that is used and whether the crystal oscillator or the ring oscillator are chosen (Liu, table 5 and col. 15, line 66). Therefore, Liu does not teach that "the oscillator being caused to generate a clock signal at each frequency in said sequence is independent of the value of said frequency," as recited in amended claim 1 (emphasis added).

Furthermore, the Office Action admits that Liu does not teach receiving a data pattern representative of a sequence of two or more frequencies at which said clock signal is required to be generated (Office Action, page 4). The Office Action attempts to modify the elements CD0 and CD1 of Liu with the teachings of Cheng. However, even if the control bits of Liu were replaced by a series of predetermined frequencies, the sequence would merely determine which divide by circuit is being used, but would not cause the oscillators to generate different frequencies. In any case, the choice of oscillator that is used to generate a clock signal at each frequency in the sequence is not

independent of the value of the frequencies because a given frequency in the sequence would require that a particular oscillator (either the crystal or the ring oscillator) be combined with the appropriate divide by circuit. Thus, Liu and Cheng do not teach that "the oscillator being caused to generate a clock signal at each frequency in said sequence is independent of the value of said frequency."

In fact, some frequencies can only be generated in Liu by using the ring oscillator with a particular divide by circuit, while another frequency can only be generated with the crystal oscillator (and other frequencies may not be possible using any combination of oscillators and divide by circuits). Therefore, two successive frequencies in the sequence may require the same oscillator (for example the crystal oscillator). Thus, Liu does not teach a "means for causing an oscillator other than the oscillator generating the clock signal at the immediately previous frequency in said sequence to generate a clock signal at a next frequency in said sequence," as recited in amended claim 1.

For the reasons presented above, Liu and Cheng do not teach all of the limitations of the claim because the cited references do not teach "means for causing an oscillator other than the oscillator generating the clock signal at the immediately previous frequency in said sequence to generate a clock signal at a next frequency in said sequence," and that "the oscillator being caused to generate a clock signal at each frequency in said sequence is independent of the value of said frequency," as recited in amended claim 1. Accordingly, Applicant respectfully asserts that amended claim 1 is patentable over Liu and Cheng because Liu and Cheng do not teach all of the limitations of the claim.

Independent Claim 15

Applicant respectfully asserts that independent claim 15 is patentable over the proposed combinations of cited references at least for similar reasons to those stated above in regard to the rejection of independent claim 1. Claim 15 recites subject matter which is similar to the subject matter of claim 1 discussed above. Although the language of claim 15 differs from the language of claim 1, and the scope of these claims should be interpreted independently of other claims, Applicant respectfully asserts that the remarks

provided above in regard to the rejection of claim 1 also apply to the rejection of claim 15.

Dependent Claims 2-14 and 16-18

Claims 2-14 and 16-18 depend from and incorporate all of the limitations of the corresponding independent claims 1 and 15. Applicant respectfully asserts that claims 2-14 and 16-18 are allowable at least based on allowable base claims. Additionally, each of claims 2-14 and 16-18 may be allowable for further reasons.

In regard to claim 14, Applicant has pointed out in the response to the Office Action mailed November 23, 2009, that the Office Action fails to explain why the limitation of claim 14 would have been anticipated by Liu. However, the current Office Action still fails to explain why the claimed limitation would have been anticipated by Liu because the Office Action does not acknowledge the actual language of claim 14. In particular, the Office Action fails to acknowledge that claim 14 recites that the device is "arranged and configured to temporarily disconnect all of the clock generation elements from the clock output, in response to a request to do so" (emphasis added). In fact, the Office Action does not even make an assertion that the cited references might disclose the indicated limitation. Accordingly, Applicant respectfully asserts that claim 14 is not anticipated by Liu because Liu does not disclose a device "arranged and configured to temporarily disconnect all of the clock generation elements from the clock output, in response to a request to do so," as recited in claim 14.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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